

Appendix A: Montana IT Expenditures and Staff for Fiscal 2012

		FY12-13 Budget	FTES	IT FTEs	IT FTE Percentage	IT Personal Services (no benefits)	IT Personal Services (plus 29% benefits)	IT Expenditures (non-personal services)	Total IT Expenditures	IT Expenditure Percentage
1104	LEG	13,637,551	134.97	14	10.4%	807,994	1,042,312	1,005,740	2,048,052	15.0%
1112	CC	472,762	5.54	-	0.0%	-	-	30,064	30,064	6.4%
2110	JUD	38,327,488	410.08	20	4.9%	642,782	829,189	2,881,585	3,710,775	9.7%
3101	GOV	5,932,283	58.07	4	6.9%	185,640	239,476	224,376	463,852	7.8%
3201	SOS	5,113,833	63.00	8	12.7%	420,264	542,141	423,731	965,871	18.9%
3202	CPP	566,832	6.00	-	0.0%	-	-	46,305	46,305	8.2%
3401	SAO	18,508,009	86.80	3	3.5%	178,506	230,272	254,915	485,187	2.6%
3501	OPI	802,948,262	163.61	29	17.7%	1,640,829	2,116,669	1,862,740	3,979,409	0.5%
4107	CC	9,103,222	17.50	2	11.4%	127,670	164,695	512,892	677,587	7.4%
4110	DOJ	81,642,619	750.89	50	6.7%	2,518,277	3,248,577	8,469,117	11,717,694	14.4%
4201	PSC	3,692,519	40.00	3	7.5%	171,246	220,908	64,754	285,662	7.7%
5101	BPE	407,469	4.00	-	0.0%	-	-	22,200	22,200	5.4%
5102	OCHE	18,353,355	93.88	6	6.4%	346,283	446,705	177,309	624,014	3.4%
5113	SDB	6,332,217	88.61	1	1.1%	39,146	50,498	102,703	153,201	2.4%
5114	Arts	1,455,316	7.00	1	14.3%	60,424	77,947	51,648	129,595	8.9%
5115	MSL	4,517,583	48.00	22	45.8%	1,149,262	1,482,548	889,354	2,371,902	52.5%
5117	MHS	5,046,735	59.83	1	1.7%	67,246	86,748	257,417	344,165	6.8%
5201	FWP	74,196,470	693.61	40	5.8%	2,195,502	2,832,198	3,196,664	6,028,862	8.1%
5301	DEQ	57,209,940	383.48	36	9.4%	2,021,510	2,607,748	2,167,415	4,775,163	8.3%
5401	MDT	699,504,362	2,111.26	84	4.0%	5,247,403	6,769,150	9,382,499	16,151,650	2.3%
5603	LIV	10,964,101	142.76	3	2.1%	138,549	178,728	312,720	491,448	4.5%
5706	DNRC	53,333,461	544.78	26	4.8%	1,348,672	1,739,787	2,440,582	4,180,368	7.8%
5801	DOR	25,907,282	661.28	27	4.1%	1,415,086	1,825,461	5,208,834	7,034,296	27.2%
6101	DOA	20,767,654	251.00	23	9.2%	2,939,955	3,792,542	6,750,292	10,542,834	50.8%
6103	MSF	313,750,310	306	47	15.4%	3,719,310	4,797,910	8,693,353	13,491,263	4.3%
6104	MPERA	5,244,449	45	9	20.0%	628,430	810,675	262,325	1,073,000	20.5%
6105	TRS	1,875,855	18	2	11.1%	125,237	161,555	150,500	312,055	16.6%
6108	OPD	23,021,772	208.50	5	2.4%	237,494	306,368	721,038	1,027,405	4.5%
6201	AG	15,628,279	119.40	6	5.0%	328,661	423,972	673,440	1,097,412	7.0%
6401	COR	175,830,927	1,279.64	24	1.9%	1,405,019	1,812,475	2,639,662	4,452,136	2.5%
6501	DOC	28,477,176	235	13	5.5%	726,024	936,571	1,676,204	2,612,775	9.2%
6602	DLI	78,456,797	756.00	66	8.7%	3,748,930	4,836,119	7,295,956	12,132,075	15.5%
6701	MA	33,328,138	199.22	5	2.5%	241,966	312,137	464,676	776,812	2.3%
6901	DPHHS	1,893,166,293	2,933.89	98	3.3%	5,114,658	6,597,908	48,189,402	54,787,310	2.9%
		4,526,721,321	12,927	678	5.2%	39,937,978	51,519,991	117,502,410	169,022,401	3.7%
6101	SITSD		184	172	93.5%	10,972,603	13,715,754	25,334,246	39,050,000	

Appendix B: IT Expenditure Details

The original analysis plan was based on using SABHRS data to gather actual IT expenditures, but SABHRS data proved to be problematic in several areas. It was often incomplete, miss-coded, or not classified to separate IT accounts.

IT Expenditure Codes

Agencies are free to code expenditures to match their individual agency requirements. There is no specific training or instructions on coding IT expenditures as IT expenditures. For some agencies it is common practice to code IT consulting and professional services (62136) as general Consulting and Professional Services (62102). It is highly unlikely that general expenditures are coded as IT specific expenditures. Therefore, SABHRS most likely under-states actual IT expenditures. The level of under-estimation is totally unknown. Consulting and Professional Services (62102), Consulting and Professional Services -Training (62135), and Capital Leases-Equipment (63305) are the general accounts most likely to contain IT expenditures. Appendix A lists the SABHRS codes that were classified as IT expenditures.

Miss-Classified Expenditures

The results show that roughly 1/3 of all IT expenditures are related to IT staff compensation and benefits. Some agencies had ratios much higher than the average of 33%.

Montana State Fund	88%
Montana Library Commission	62%
Public Employees Retirement System	71%
Teachers Retirement System	51%

The most likely cause of this unusual result is that many non-FTE IT expenditures were not coded as IT expenditures. Charges for hardware, software, and applications were probably coded as general, non-IT expenditures. This mis-classification drives up the proportion of IT expenses related to FTE as well as under-counts the true IT expenditures. In the case of Montana State Fund, SABHRS produced \$533,000 in SITSD related expenses, but their 2012 Annual Report lists \$1,468,000 in expenditures to DOA for “support services.” In addition, State Fund’s IT SABHRS expenditures are a fraction of IT expenditures for similarly sized organizations.

Table 1

Agency	IT FTEs	IT Expenditures (non-personal services)
Montana State Fund	47	\$621,467
Department of Justice	49	\$8,469,117
Fish, Wildlife and Parks	39	\$3,196,664
Department of Environmental Quality	36	\$2,167,415

Agencies with very low proportions of non-FTE IT expenditures probably coded major IT expenses as non-IT expenses. This effectively under estimates the total IT spend for Montana. For Montana State Fund, their IT expenditures were estimated from their known expenditures on compensation for IT staff.

Appendix A contains details on agency expenditures for IT personal services and non-personal services.

Operating Expenditures

- A SABHRS query for FY2012 expenditures produced questionable results in many areas. A sampling of the unusual results:
- Two agencies, Commerce and Agriculture, had negative operating expenditures.
 - OCHE’s operating expenditures included the entire University System as well as the office of the Commissioner and MGSLP. Using just SABHRS data made it impossible to separate the Commissioner’s office and MGSLP from the rest of the University System.
 - DPHSS had only \$49M in operating expenses in SABHRS , while the department’s budget is approximately \$1.9B annually.
 - The Judicial branch had under \$9M in operating expenditures for 410 FTE.

The list of anomalies and issues was so long that ultimately SABHRS was not used for agency operating expenditures. This analysis used agency operating budgets as a substitute for operational expenses. Using Montana budget data also matched with the budget data available from peer states. LFD supplied the budget information for all but four agencies: OCHE, MSF, TRS, and PERS. MSF, PERS, and TRS operating expenditures were extracted from their annual reports. OCHE expenditures for the Commissioner’s office and MGSLP were calculated based on Montana’s ratio of IT expenditures to operating expenditures.

Organizational Units

Agency operating budget data and IT expenditure data were collected for the Executive, Legislative, and Judicial branches. The University system was excluded except for the office of the Commissioner of Higher Education (OCHE). Montana’s Guaranteed Student Loan Program (MGSLP) is a part of OCHE. A few small organizational units that had no IT expenditures and no IT staff were also excluded. Excluded units:

Table 2

5103	University of Montana	5107	MSU - Northern	5111	Forestry and Conservation Experiment Station
5104	Montana State University	5108	UM - Western	5112	Bureau of Mines
5105	UM - Technology	5109	Agriculture Experiment Station	5119	Fire Services Training School
5106	MSU - Billings	5110	Extension Service	6102	Appellate Defender

DOA and SITSD Expenditures

Although SITSD is a division within DOA, SITSD’s source of funding is a proprietary fund; and the budget DOA receives from the legislature does not cover SITSD. It is a miss-statement to say the legislature approves SITSD’s budget. The legislature approves SITSD rates. The SITSD budget is the estimate of the revenue generated by the approved rates. DOA’s \$20.7M FY2012 operating budget was obtained from an LFD report and it excludes SITSD’s \$39.05M estimated operating revenues that result from its rates.

Appendix B: Montana IT Expenditures and Staff - FY2004 to FY2012

		IT Expenditures													
		Agency Operating Budget					Non-Personal Services			Personal Services plus 29% Benefits			Total		
		FY2004	FY2009	FY2010	FY2011	FY2012	FY2004	FY2009	FY2012	FY2004	FY2009	FY2012	FY2004	FY2009	FY2012
1104	LEG	10,655,118	12,408,643	14,469,304	13,770,399	13,637,551	942,469	2,024,623	1,005,740	885,812	842,881	1,042,312	1,828,281	2,867,504	2,048,052
1112	CC	1,336,960	1,535,286	1,379,020	1,393,320	472,762	14,960	20,267	30,064	-	-	-	14,960	20,267	30,064
2110	JUD	33,086,432	37,413,228	37,073,103	37,867,496	38,327,488	1,383,623	3,171,902	2,881,585	987,372	1,146,312	829,189	2,370,995	4,318,214	3,710,775
3101	GOV	11,733,514	6,688,961	6,303,176	6,174,517	5,932,283	146,866	245,510	224,376	44,826	126,247	239,476	191,692	371,757	463,852
3201	SOS	10,858,333	3,924,544	4,450,000	4,950,000	5,113,833	743,581	1,275,377	423,731	256,719	487,878	542,141	1,000,300	1,763,254	965,871
3202	CPP	320,182	569,204	509,715	460,883	566,832	10,611	109,379	46,305	-	-	-	10,611	109,379	46,305
3401	SAO	4,893,557	179,390,269	18,608,016	19,110,097	18,508,009	155,916	176,116	254,915	175,432	159,163	230,272	331,348	335,280	485,187
3501	OPI	647,943,537	822,713,630	797,117,106	807,682,536	802,948,262	586,638	785,043	1,862,740	1,237,543	1,338,375	2,116,669	1,824,181	2,123,418	3,979,409
4107	BCC	12,062,874	9,200,663	8,972,537	8,860,511	9,103,222		137,188	512,892	-	75,505	164,695	-	212,694	677,587
4110	DOJ	57,600,559	69,990,293	75,815,195	77,764,606	81,642,619	6,988,956	10,459,208	8,469,117	2,354,997	2,605,853	3,248,577	9,343,953	13,065,062	11,717,694
4201	PSC	3,238,625	3,354,050	3,640,294	3,612,027	3,692,519	83,760	95,379	64,754	134,022	134,001	220,908	217,782	229,380	285,662
5101	BPE	348,001	408,914	409,520	413,221	407,469	6,323	15,912	22,200	-	-	-	6,323	15,912	22,200
5102	OCHE	12,577,299	18,922,647	18,732,883.00	18,543,119	18,353,355	205,703	292,170	177,309	221,925	351,200	446,705	427,628	643,370	624,014
5113	SDB	3,932,597	6,311,192	6,371,042	6,380,326	6,332,217	54,397	154,736	102,703	45,930	45,266	50,498	100,327	200,002	153,201
5114	Arts	1,045,272	1,282,227	1,283,796	1,271,689	1,455,316	25,347	106,640	51,648	57,770	63,283	77,947	83,117	169,923	129,595
5115	MSL	3,846,638	4,389,249	5,079,449	4,478,615	4,517,583	302,604	240,810	889,354	809,576	1,272,758	1,482,548	1,112,180	1,513,568	2,371,902
5117	MHS	3,880,898	4,409,664	4,545,008	5,098,956	5,046,735	194,855	190,860	257,417	-	82,167	86,748	194,855	273,027	344,165
5201	FWP	57,596,278	69,608,124	72,144,533	72,527,633	74,196,470	3,139,319	2,967,640	3,196,664	1,652,533	2,362,384	2,832,198	4,791,852	5,330,024	6,028,862
5301	DEQ	82,183,099	57,210,227	60,216,916	60,368,667	57,209,940	1,506,677	2,833,001	2,167,415	1,681,289	1,756,606	2,607,748	3,187,966	4,589,607	4,775,163
5401	MDT	554,023,696	540,594,456	569,314,794	561,363,305	699,504,362	10,804,939	9,383,567	9,382,499	4,749,014	7,105,878	6,769,150	15,553,953	16,489,444	16,151,650
5603	LIV	9,244,883	10,564,697	11,765,806	11,861,555	10,964,101	277,484	462,021	312,720	119,854	171,397	178,728	397,338	633,418	491,448
5706	DNRC	39,702,160	52,785,644	56,864,902	56,649,570	53,333,461	1,500,505	2,402,305	2,440,582	780,125	967,394	1,739,787	2,280,630	3,369,699	4,180,368
5801	DOR	34,806,208	54,348,016	54,847,363	54,975,290	25,907,282	8,460,006	8,769,933	5,208,834	2,506,035	1,445,010	1,825,461	10,966,041	10,214,943	7,034,296
6101	DOA	19,413,386	21,973,145	22,066,966	21,550,526	20,767,654	2,431,799	12,492,419	6,750,292	654,445	2,600,340	3,792,542	3,086,244	15,092,759	10,542,834
6103	MSF	165,923,471	238,275,364	213,391,741	224,100,368	313,750,310	2,231,078	2,718,118	8,693,353	3,244,396	5,144,969	4,797,910	5,475,475	7,863,087	13,491,263
6104	MPERA	3,514,625	4,148,540	4,275,323	4,531,070	5,244,449	315,270	415,561	262,325	190,445	299,865	810,675	505,715	715,426	1,073,000
6105	TRS	1,506,696	1,853,873	1,905,124	1,843,368	1,875,855	244,212	287,446	150,500	159,407	156,044	161,555	403,619	443,490	312,055
6108	OPD	-	20,151,042	20,022,492	20,012,055	23,021,772	-	573,929	721,038	-	416,275	306,368	-	990,204	1,027,405
6201	AG	13,195,029	14,898,789	17,730,643	17,150,442	15,628,279	394,018	317,981	673,440	283,693	427,947	423,972	677,711	745,928	1,097,412
6401	COR	110,493,487	182,646,018	172,779,388	177,648,809	175,830,927	1,787,361	4,426,931	2,639,662	1,146,378	1,788,951	1,812,475	2,933,739	6,215,882	4,452,136
6501	DOC	19,355,090	30,485,257	38,007,901	32,657,476	28,477,176	1,103,851	1,732,131	1,676,204	697,651	784,507	936,571	1,801,502	2,516,638	2,612,775
6602	DLI	62,470,795	72,873,061	73,284,830	72,263,889	78,456,797	6,522,638	5,762,893	7,295,956	4,063,785	3,441,297	4,836,119	10,586,423	9,204,190	12,132,075
6701	MA	18,470,484	28,935,557	40,513,696	40,774,261	33,328,138	1,215,229	1,683,752	464,676	176,494	237,268	312,137	1,391,723	1,921,020	776,812
6901	DPHHS	1,107,708,284	1,593,635,241	1,600,812,838	1,589,116,572	1,893,166,293	27,461,080	40,458,971	48,189,402	4,639,881	5,741,017	6,597,908	32,100,961	46,199,988	54,787,310
		3,118,968,067	4,177,899,715	4,034,704,420	4,037,227,174	4,526,721,321	81,242,075	117,189,719	117,502,410	33,957,351	43,578,037	51,519,991	115,199,426	160,767,756	169,022,401
6101	SITSD	29,913,714	30,008,807	36,721,531	41,696,279	40,863,998	20,541,092	21,606,409	26,345,013	9,372,622	12,913,484	14,518,985	29,913,714	34,519,893	40,863,998

		Agency FTE				
		FY2004	FY2009	FY2010	FY2011	FY2012
1104	LEG	125.00	135.14	134.97	140.14	134.97
1112	CC	5.00	5.54	5.54	5.54	5.54
2110	JUD	375.00	398.08	404.08	410.08	410.08
3101	GOV	55.50	60.07	60.07	60.07	58.07
3201	SOS	51.00	54.54	55.25	55.25	63
3202	CPP	5.00	6.00	6	6	6
3401	SAO	71.50	78.50	84.5	84.5	86.8
3501	OPI	125.31	157.36	165.86	165.86	163.61
4107	CC	19.00	19.50	20	20	17.5
4110	DOJ	712.35	727.05	752.05	752.05	750.89
4201	PSC	39.00	39.00	39	39	40
5101	BPE	4.00	4.00	4	4	4
5102	OCHE	90.06	104.06	104.05	104.05	93.88
5113	SDB	81.68	88.61	88.61	88.61	88.61
5114	Arts	7.00	7.00	7	7	7
5115	MSL	28.50	30.50	30.5	30.5	48
5117	MHS	57.68	61.14	61.14	61.14	59.83
5201	FWP	627.00	679.10	696.08	678.6	693.61
5301	DEQ	486.26	376.29	387.29	387.29	383.48
5401	MDT	2,164.17	2,135.96	2111.26	2111.26	2111.26
5603	LIV	145.49	137.99	141.49	143.49	142.76
5706	DNRC	486.00	545.37	557.69	557.69	544.78
5801	DOR	647.00	647.78	666.83	666.83	661.28
6101	DOA	149.00	161.62	155.62	156.12	251
6103	MSF	268	291	296	301	306
6104	MPERA	34	36	39	42	45
6105	TRS	16	17	18	18	18
6108	OPD	-	192.50	200.5	200.5	208.5
6201	AG	111.55	117.54	120.54	120.54	119.4
6401	COR	1,095.80	1,256.89	1306.64	1304.64	1279.64
6501	DOC	69	57	53.66	53.66	235
6602	DLI	665.00	730.08	755.08	755.08	756
6701	MA	168.90	182.15	192.65	192.65	199.22
6901	DPHHS	2,791.49	2,893.32	2942.41	2956.91	2933.89
		11,777	12,433	12,663	12,680	12,927
6101	SITSD	195	175	178	181	184
		11,972	12,608	12,841	12,861	13,111

Agency IT FTE		
FY2004	FY2009	FY2012
10	12	14
-	-	-
15	20	20
1	2	4
4	8	8
-	-	-
3	2	3
22	20	29
-	1	2
42	44	50
2	2	3
-	0	-
4	5	6
1	1	1
1	1	1
18	19	22
-	1	1
45	34	40
35	26	36
77	92	84
3	3	3
10	16	26
37	21	27
12	35	23
26	54	47
4	4	9
2	2	2
-	8	5
5	6	6
22	25	24
11	13	13
72	51	66
3	4	5
75	88	98
562	620	678
163	175	172
725	795	850

Appendix C: SABHRS IT Account Codes

IT Expenditure Codes (non-DOA)									
Miscellaneous		Hardware		Professional and Consulting Services		Communications and Network			
62173	Computer Processing/Non-D Of A	62245	Minor Equip - Comp Hardware	62136	IT Consult & Prof Services	61311	Communication Device Allowance	62377	Long Distance Voice Circuits
62812B	Info Technology Allowance	62262	Mus G&C-Comp Hrdware 1000-4999	62136A	IT Vendor Services	6220A	Audio/Video Components	62378	Voice Circuit Add/Move/Change
62876	Education/Training IT Staff	62245D	Single Use Computer	62184	Operational Support/Non-D Of A	62228	Radio Supplies/Minor Equip	62379	Local Data Circuits
67711	Cyber Claims	62766	Single User Computers	Application Development		62245C	Minor Equip - Communications	62380	Long Distance Data Circuits
62182	Misc. Info Sys. Serv/Non-DOA	63106	Multi-User Computers&Terminals			62322	Teleconferences	62381	Data Circuits
Printing, Publishing, Graphics		63304	Single User Computers-Ls-Nb			62323	Videosite Mgt Expense	62382	Data Circuit Add/Move/Change
62185	P and G Laser Printing	62743	Multi-User Computers&Terminals			62324	Videosite Misc. Vendor Expense	62384	Private Cell Phones
62190	Printing/Pub & Graphics	Software		621A9	Applications Development	62327	Satellite Phones	62386	Long Distance Chrg/Non-D Of A
62191	Printing/Other Provider			621C4	GIS Application Development	62328	Poll Rem Cap communication NB	62387	Credit Card Calls
62296	Computer Paper/Central Stores			62176	System Development/Non-D Of A	62369	Converged Traffic	62388	Local Calls
62911	Computer Paper							62390	Wireless Handheld
IT Leasing		62522	Software Programs					62391	Wireless Networking
63502	Installment Purch-IT Equip-NB	62249	Minor Software.					62181	Data Network Serv/Non-D Of A
69303	Lease Principal for IT	62261	Mus G&C-Software \$1000-4999					62392	Satellite Tracking Access
69303A	It Lease Principal - Nb	63401	Multi-User Software					62149	Virtual Private Network
69304	Lease Interest for IT	63402	Single User Software					63104	Communications
		62187A	Software License Non-Capitaliz					64210	Telecommunications
		62929	Computer Software					66188	Telecommunication Providers
		63403	Software/Central Stores					62709	Radio/Radar
						62371	Telephone Equip Crg/Non-D Of A		
						62372	Telephone Add/Move/Change		
						62373	Telephone Equip Maintenance		
						62374	Internet Services/Non DofA		
						62375	Off Premise Extensions		
						62376	Local Voice Circuits		

IT Expenditure Codes (DOA related)								Excluded Codes	
Hosting		Applications		Network Services		Miscellaneous		photocopying	
62142	Disk Storage Charges/DOA	621B5	ITSD EMail Services	62144	Misc Network Serv/DOA	62556	ITSD Training Facilities	printing, printer and paper supplies	
621B1	ITSD Storage Hosting Services	621B6	ITSD IMAGING SERVICES	62174	Data Network Serv/D Of A	62876I	ITSD Sponsored Training Servic	records management	
621B2	ITSD Server Hosting Services	621B7	ITSD Sharp Content Services	623B0	ITSD Voice Services	621C5	ITSD Enterprise Services	microfilming supplies and equipment	
621B3	ITSD Web Hosting	Professional Services		623B1	ITSD Video Services	622B1	ITSD Asset Broker	62827R	DLI OIT Expense
621C8	ITSD Equipment Hosting Service			623B2	ITSD Network Services	622B2	ITSD Pass Through	62827U	DLI OIT Indirect Costs
621B4	ITSD Application Hosting Servi			623B3	ITSD Pass-Through NTSB				
621B9	ITSD Database Hosting Services			623B4	ITSD Long Distance Services				
		621C7	ITSD PMO Services	62385	Long Distance Chrg/D Of A			61000	Personal Services
Mainframe		621C9	ITSD GIS Services	62370	Telephone Equip Chrg/D Of A			62135	Consultg & Prof Serv-Training
62177	TSO CPU Seconds/DOA	621C1	ITSD Installation Services					62195	Professional Services/Internal
62180	CICS CPU Seconds/DOA	621C2	ITSD Application Development					63305	Capital Leases - Equipment
62168	Read/Write Computer Trans/DOA	621C3	ITSD Web Development Services					62719	Direct Digital Control
62172	Batch CPU Seconds/DOA	62183	Operational Support/D Of A						
Codes that May Include IT Expendit									

Appendix D: IT FTEs

The predominate sources of data on state FTEs and IT staff compensation were the state transparency web site, LFD reports, and agency web sites that listed specific staff and titles. Each source had limitations and inaccuracies that were mitigated by using an alternate source. LFD reports were usually accurate because they did not include temporary FTE. Unfortunately, LFD reports did not cover FTE compensated through proprietary funds. FTEs funded through proprietary funds were obtained from individual agency web sites. For the Legislative branch and OCHE the IT compensation data was estimated from the average IT compensation for the rest of the state agencies.

The Montana Transparency web site provided a list of state employees and their titles. The list was manually inspected for all titles with an IT connotation.

Some titles were excluded from the classification as IT FTE. Most of these titles were related to data entry occupations.

- data processing clerk 18
- data control technician 2
- data processing technician 12
- document imaging operator 27
- document processor 5
- imaging clerk 1
- management analyst (except for SITSD management analysts) 48
- operations research analyst 30

These occupations/titles were judged to not require specialized IT education and experience; that general clerical and business skills were the primary requirement.

Since the count of IT FTE was related to title; accountants, secretaries, and clerks that work in SITSD and other IT organizations were not counted as IT professionals. GIS professionals were usually not counted as IT professionals. FWP had 5 GIS professionals with the title of “operations research analyst”. Although their time is spent working with GIS data sets and software, they were not classified as IT professionals. Most GIS professionals do not carry formal titles that contain “GIS” or “geo”. Only two positions within state government have “GIS” or “geo” as part of their titles. This methodology undercounts total IT FTE, but including all the FTE without explicit IT titles will over-count by a large margin. It is completely unknown how many FTE carry an IT title but no real IT responsibilities. Overall, the count of Montana IT FTE is conservatively low.

The data sources included:

- § Montana transparency web site <http://employeepay.mt.gov> Employee pay information for FY2012 was extracted from SABHRS in February 2012.
- Legislative Fiscal Report for the 2013 Biennium; Appendix A, page A-9 The report covers FY 2012.
- Legislative Services web site http://leg.mt.gov/css/services/division/lcd_staff.asp
- Commissioner of Higher education web site http://MUS.edu/che/che_staff.asp

Appendix D: IT FTEs

IT Titles/Occupations	FY2012	FY2009
Architecture Leader	1	1
Business Analyst	10	
Business Analyst II	4	4
CIO	1	1
Communication Specialist	2	1
Communication Technician		2
Communication Technologist	18	15
Communication Team Lead	1	
Computer Program Manager	1	
Computer Application Engineer	62	28
Computer IS Manager	54	59
Computer Operator	1	8
Computer Programmer	57	74
Computer Security Specialist	12	7
Computer Supervisor	44	50
Computer Support Specialist	69	73
Computer Support Supervisor	1	
Computer Support Technician	18	32
Computer Systems Analyst	155	138
Computer Systems Engineer	27	20
Computer Technology Specialist	1	
Data Center Operator	2	2
Database Analyst	39	29
DBA	5	3
Database Assistant	1	
Desktop Publisher	2	
Director of IT	1	1
Division Administrator (Baldwin)	1	

IT Titles/Occupations	FY2012	FY2009
Electronic Data Exchange Analyst	1	
Enterprise Application Leader	2	1
GIS Analyst/Developer	1	
GIS Specialist	1	
Health IT Manager	1	
IS Support Technician	1	
IS Support Assistant	1	
IS Support Specialist	4	
IS Analyst	3	3
IS Supervisor	2	2
Information Technician		6
IT Business Analyst/Trainer	4	7
IT Insurance Appl. Team Leader	1	1
IT Operations Team leader	1	
IT Project Manager	8	
IT QA Analyst	3	1
IT Specialist Training Supervisor		1
IT Supervisor	1	
JCATS Systems Analyst	1	
Management Analyst (SITSD)	21	16
Microcomputer Support Specialist	1	
Network Administrator	55	65
Network Engineer II	2	1
Network Systems Analyst	62	50
Network Systems Engineer	2	
Operations Manager (Kauska, Bousliman, I	4	5
Personal Staff/EO-Admin (Chapman)	1	
Programmer/Analyst	6	

IT Titles/Occupations	FY2012	FY2009
Security Specialist		1
Senior Software Engineer	3	
Senior System Administrator	1	
Software Engineer	11	14
Systems Administrator	5	5
Team Leader		14
Technical Support Analyst	3	2
Technical Support Analyst II	1	2
Telecommunications Specialist	24	30
Web Administrator	1	
Web Developer	9	3
Webmaster	2	

non-IT Titles/Occupations	FY2012	FY2009
Data Processing Clerk	18	16
Data Control Technician	2	26
Data Processor Technician	12	21
Document Imaging Operator	27	7
Document Processor	5	6
Imaging Clerk	1	
Management Analyst (non-SITSD)	48	47

Appendix E: State Statistics on Budget, IT Staffing, and IT Expenditures

	Wyoming	Vermont	North Dakota	Alaska	South Dakota	Delaware	Montana	Rhode Island	New Hampshire	Maine
Population	576,412	626,011	699,628	731,449	833,354	917,092	1,005,141	1,050,292	1,320,718	1,329,192
FTE										
all FTE (including higher education)	14589		11,235	22,370	13,628	16,384	13,111	15,026	10,550	
higher education FTE	6741		2,246	4838	5,012	1,090	NA	2,267	-	
FTE (excluding higher education)	7,848	7,743	8,989	17,532	8,616	15,294	13,111	12,760	10,550	13,325
IT - central FTE	292	75	326.3	130	281	230	172	194.4	369	492.5
IT - non-central FTE	119	285	0	72	0	300	666	unknown	0	0
IT - total FTE	411	360	326.3	unknown	281	530	850	unknown	369	492.5
Budget										
fiscal year	2013-2014 Biennium	FY2012	2011-2013 Biennium	FY2014	FY2012	FY2013	FY2012	FY2013	FY2014	FY14-15
annual/biennial appropriation	3,686,048,116	5,017,123,433	4,962,240,690	12,047,235,300	3,996,755,880	4,663,541,300	4,526,721,321	7,943,434,957	5,470,221,632	6,318,350,252
higher education appropriation	262,079,950	-	382,301,777	911,703,300	772,472,037	216,492,700	-	1,062,052,616	115,000,000	-
Annual budget (excluding higher ed.)	3,423,968,166	5,017,123,433	4,579,938,913	11,135,532,000	3,224,283,843	4,447,048,600	4,526,721,321	6,881,382,341	5,355,221,632	3,159,175,126
IT - central budget	40,751,206	37,665,128	82,164,444	40,136,900	45,875,008	67,025,400	39,050,000	35,285,725	67,889,200	143,000,000
IT - non-central budget	unknown	22,400,000	-	unknown	-	-	129,972,401	unknown	-	-
IT - total budget	unknown	60,065,128	82,164,444	unknown	45,875,008	67,025,400	169,022,401	unknown	67,889,200	143,000,000

Appendix F: IT Expenditure Financial Ratios

	Wyoming	Vermont	North Dakota	Alaska	South Dakota	Delaware	Montana	Rhode Island	New Hampshire	Maine
annual expenditures per capita	\$ 5,940	\$ 8,014	\$ 6,546	\$ 15,224	\$ 3,869	\$ 4,849	\$ 4,504	\$ 6,552	\$ 4,055	\$ 2,377
annual IT expenditures per capita		96	117		55	73	168.16		51	108
central IT FTE / total IT FTE	71%	21%	100%		100%	43%	20%		100%	100%
all IT FTE / state FTE	5.24%	4.65%	3.63%		3.26%	3.47%	6.48%		3.50%	3.70%
all IT expend./operating expend.		1.20%	1.79%		1.42%	1.51%	3.73%		1.27%	4.53%
IT spending per state employee		\$ 7,757	\$ 9,140		\$ 5,325	\$ 4,383	\$ 12,892		\$ 6,435	\$ 10,732
state FTE per 1000 capita	13.6	12.4	12.8	24.0	10.3	16.7	13.0	12.1	8.0	10.0

Appendix G - IT Services by State

	MT	VT	DE	SD	ME	ND		MT	VT	DE	SD	ME	ND
Network Services							Professional Services						
Data network services (WAN, including internet access)	X	X	X	X	X	X	Project Management	X	X		X		X
LAN and wiring services	X	X		X	X	X	Database	X		X	X	X	X
Wireless	X	X	X		X	X	Business Analysis		X	X	X		X
VPN	X	X	X	X	X	X	Procurement Assistance	X		X			X
Voice Services							Desktop support and management	X	X	X	X	X	X
Voice network	X	X	X	X	X	X	Business Intelligence						X
voice mail	X	X	X		X	X	Communications						
VOIP	X	X	X	X	X		Email	X	X	X	X	X	X
audio conferencing	X	X	X	X	X	X	Instant messaging	X		X		X	X
Automatic Call Distribution (ACD)	X	X				X	Unified Communications						X
Call Center						X	Video conferencing	X		X	X	X	X
Interactive Voice Response (IVR)	X	X			X	X	desktop video					X	X
Call Recording	X		X		X	X	fax			X		X	X
Long Distance	X	X	X		X	X	SharePoint	X	X	X	X		X
Phones	X	X	X	X	X	X	Miscellaneous Services						
Cell phones			X		X		ERP	X	X	X	X	X	X
Add, Move, Change	X	X	X	X	X	X	Service Desk	internal only	internal only	internal only	X	X	X
Hosting							Public broadcasting (radio)				X		
Hosting - servers	X	X	X		X	X	Public safety radio network			X		X	
Hosting - web servers	X	X	X			X	Records management						X
Hosting - databases	X		X	X	X	X	Software Development						
Hosting - storage and backup	X	X	X	X	X	X	Application development	X		X	X		X
Hosting - applications	X		X	X			web development	X	X	X			X
Hosting- mainframe	X	X	X	X	X	X	GIS				X	X	X
data center space and racks	X		X		X	X	Electronic Document Management						
Output Support							imaging/scanning					X	X
file and print				X	X	X	document management/archiving	X				X	X
online report viewing and storage	X	X	X				forms management	X					X
Printing (bulk)	X		X	X	X		workflow	X				X	X
							report management (system generated)	X		X			X
							e-signatures		X				
								38	26	35	26	35	45